

# PATENT ABSTRACTS OF JAPAN

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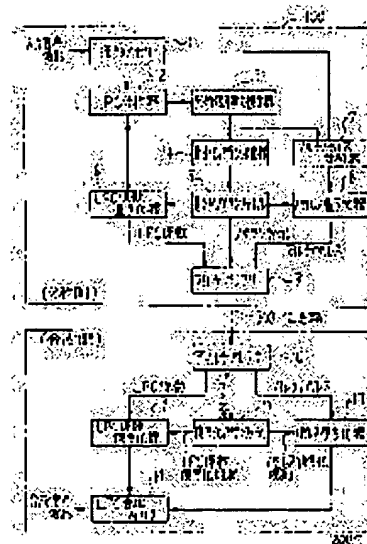
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## (54) MULTI-PULSE TYPE VOICE ENCODING AND DECODING DEVICE

### (57)Abstract:

**PURPOSE:** To improve the quality of a synthesized voice by changing the quantization bit assignment of a linear predictive analysis coefficient as spectrum information and multi-pulses as sound source information.

**CONSTITUTION:** An input voice waveform is stored in a waveform memory 1 and supplied to an LPE (linear predictive analysis) analyzer 2. The analyzer 2 sends predicted remaining electric power to a predicted remaining electric power detector 3 by analysis degrees of an LPC analysis and also sends the LPC coefficient to an LPC coefficient quantizer 6 and a multiple analyzer 7. The analyzer 7 calculates the amplitude and position of the multi-pulses corresponding to the sound source information. A quantization pattern determining device 4 selects the best quantization pattern according to the predicted remaining electric power and sends it to a quantization pattern file 5. This file 5 indicates the quantization bit assignment to the LPC coefficient quantizer 6 and pulse quantizer 8 according to the pattern. The quantizers 6 and 8 quantizes the LPC coefficient and multi-pulses. A multiplexer 9 multiplexes sent pattern labels indicating quantization rules.



## LEGAL STATUS

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